1/13

THE TRADEMAR

PROCESS TO GROUP MODEMS BY MODEM TYPE AND COMMAND EACH
TO SEND UPSTREAM DATA ON AN UPSTREAM CHANNEL HAVING SUITABLE
BURST PROFILE CHARACTERISTICS MATCHED TO THE MODEMS
THROUGHPUT CAPABILITY

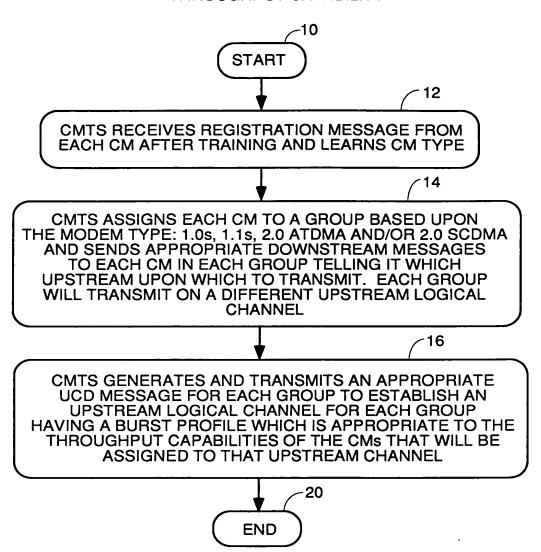


FIG. 1

2/13

PROCESS TO GROUP AND SUBGROUP MODEMS BY MODEM TYPE AND RECEIVED POWER AND COMMAND EACH TO SEND UPSTREAM DATA ON AN UPSTREAM CHANNEL HAVING SUITABLE BURST PROFILE CHARACTERISTICS MATCHED TO THE MODEM'S THROUGHPUT AND RECEIVED POWER - SPECIES 4

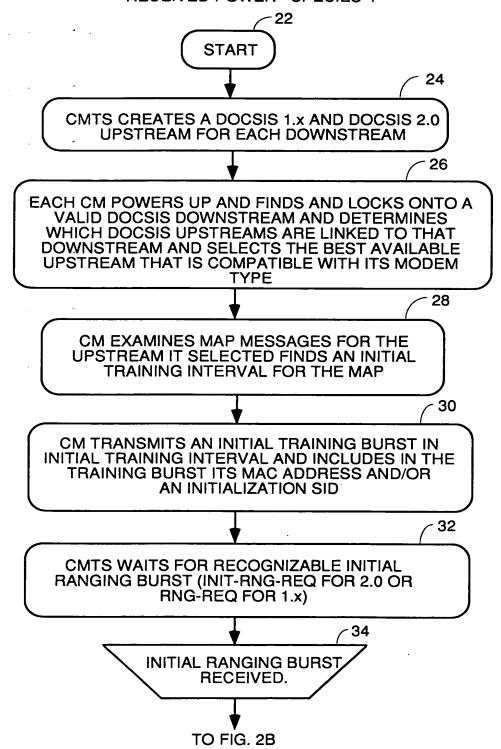


FIG. 2A

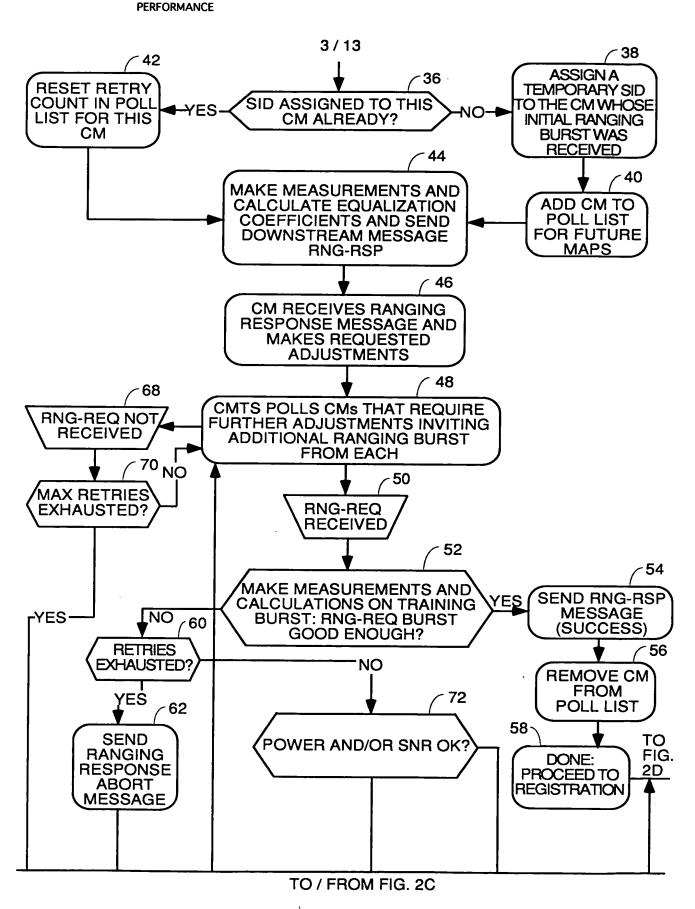


FIG. 2B

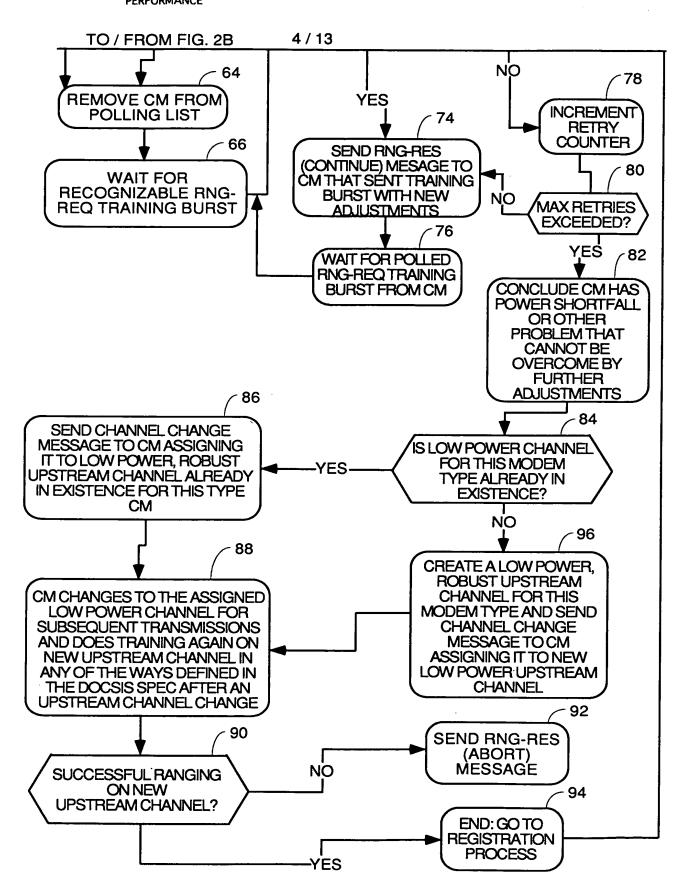


FIG. 2C

PERFORMANCE

5/13

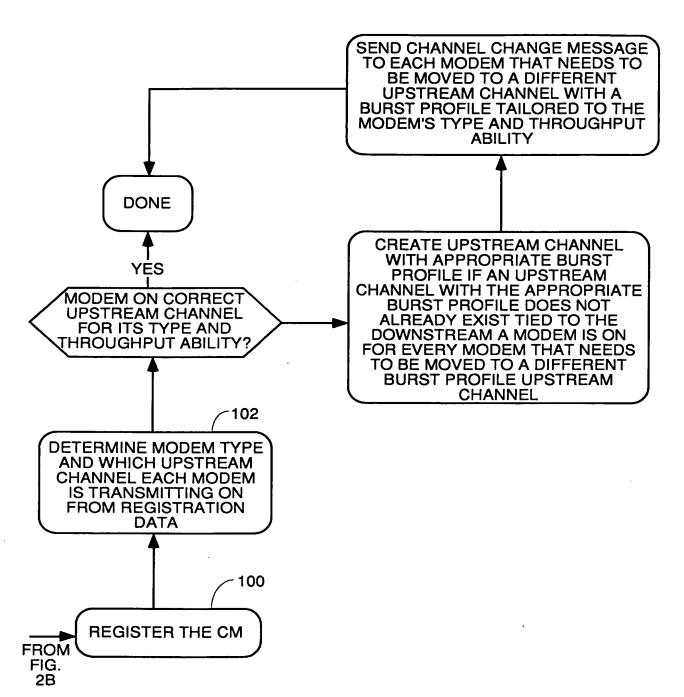
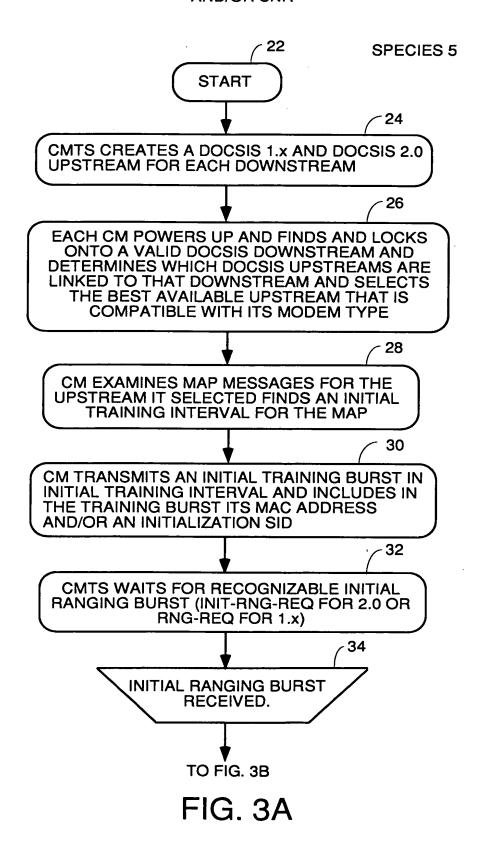


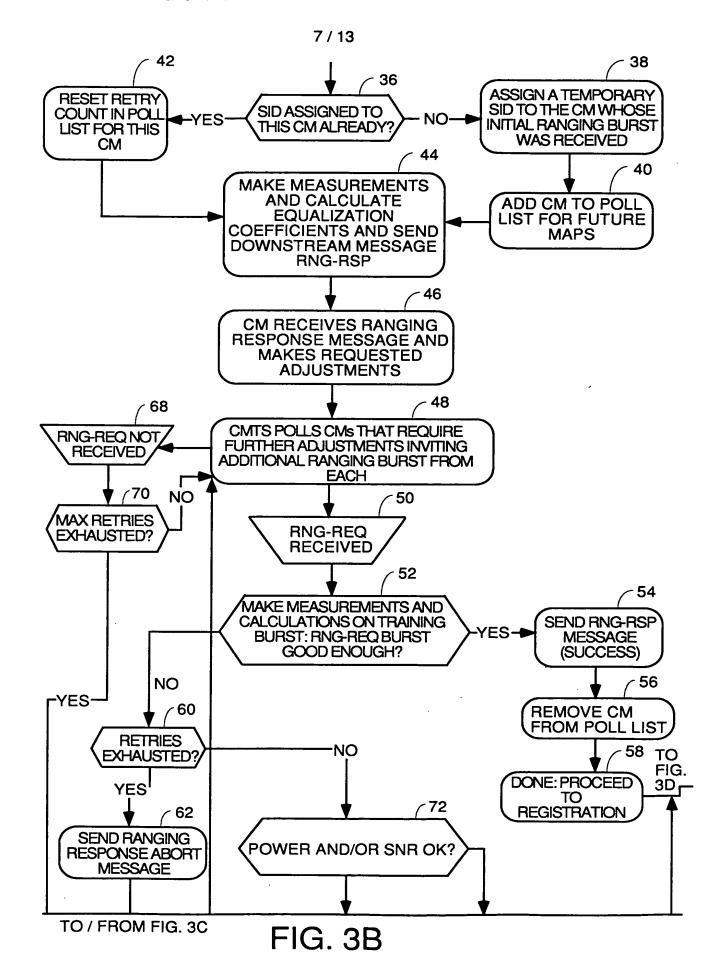
FIG. 2D

6/13

PROCESS TO GROUP AND SUBGROUP MODEMS BY MODEM TYPE, SNR AND/OR RECEIVED POWER AND COMMAND EACH TO SEND UPSTREAM DATA ON AN UPSTREAM CHANNEL HAVING SUITABLE BURST PROFILE CHARACTERISTICS MATCHED TO THE MODEM'S THROUGHPUT AND RECEIVED POWER AND/OR SNR



PERFORMANCE



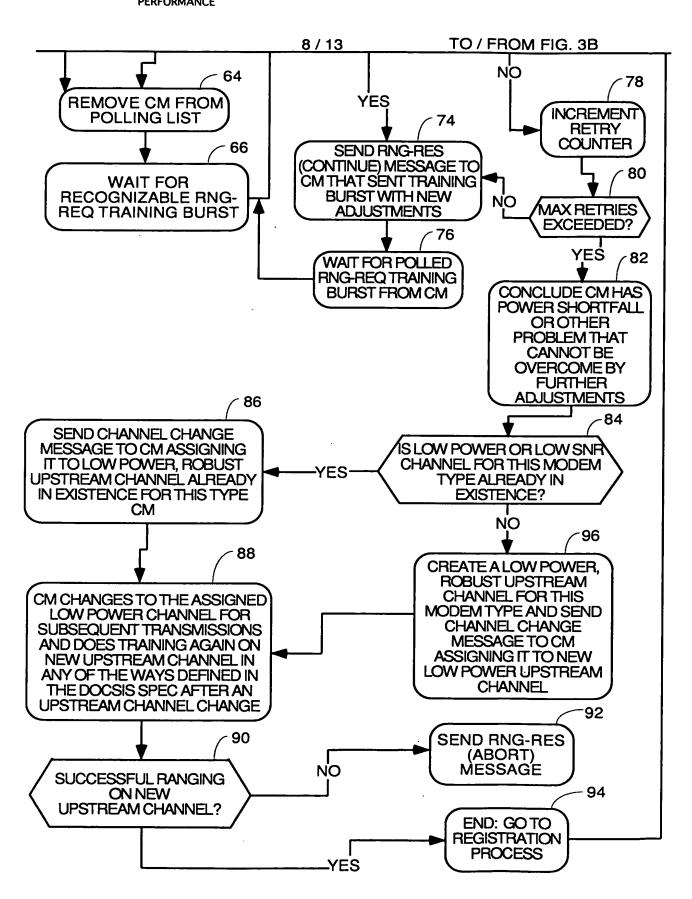


FIG. 3C

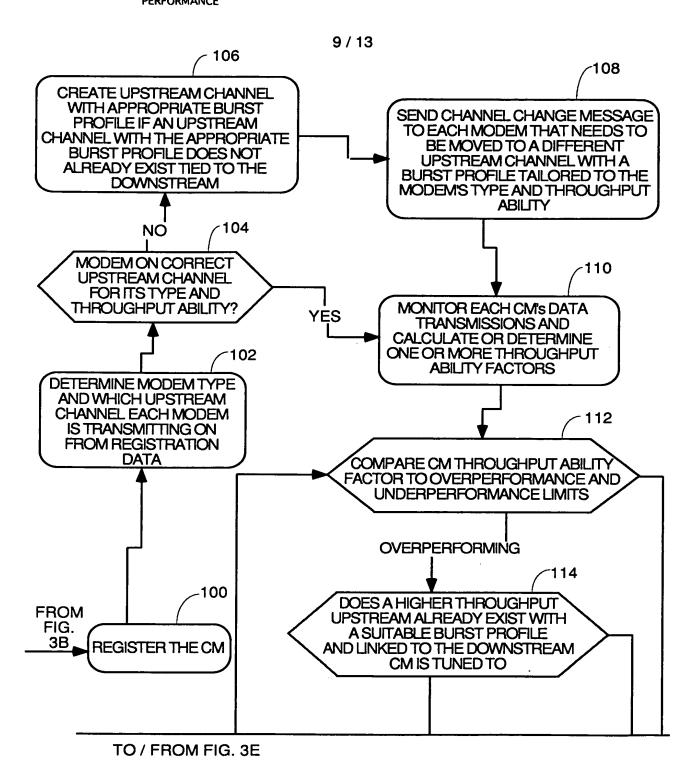


FIG. 3D

10/13

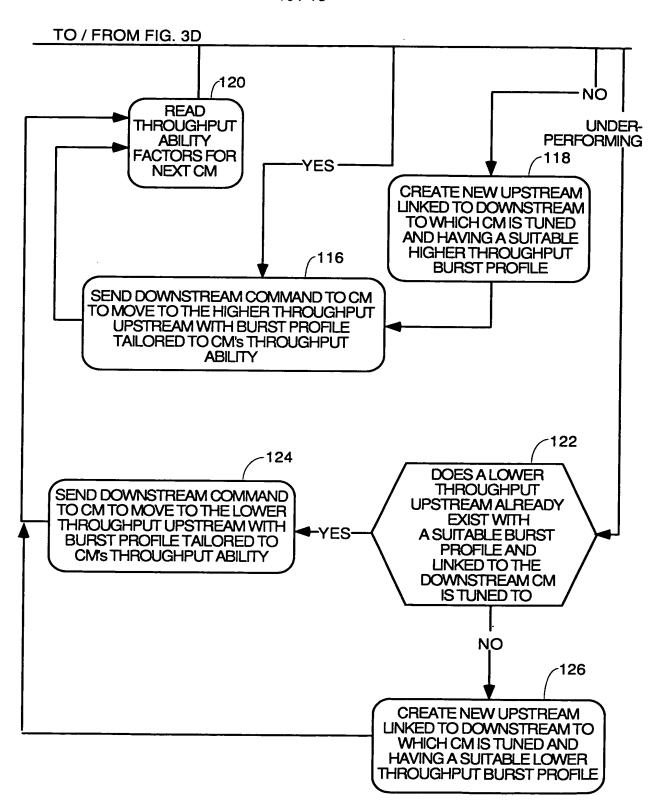


FIG. 3E

Application No.: 10/729,179 Inventor: AZENKOT, et al. Docket No.: TER-051 ESTABLISHMENT OF MULTIPLE UPSTREAM DOCSIS LOGICAL CHANNELS BASED UPON Title: **PERFORMANCE** 11 / 13 -130 SPECIES 2 - 144 START -132 WITHIN LOGICAL GROUPS ORGANIZED BY MODULATION PROFILE/TYPE, CREATE ESTABLISH 1.0, 1.1 AND 2.0 SCDMA OR ATDMA SEPARATE SUBGROUP(S) FOR UPSTREAM FOR EVERY **OVER PERFORMERS AND DOWNSTREAM** SEPARATE SUBGROUP(S) FOR UNDERPERFORMERS -134 -146 RECEIVE TRAINING **BURSTS AND PROCESS** CREATE A NEW UPSTREAM FOR EACH TO TRAIN ALL CMs UNDERPERFORMING GROUP 136 WITH LOWER THROUGHPUT AND/OR MORE AGGRESSIVE REGISTER EACH CM AND LEARN FORWARD ERROR ITS DOCSIS TYPE/MODULATION CORRECTION, AND MOVE **PROFILE** UNDERPERFORMING CMs TO IT 138 148 CREATE SEPARATE UPSTREAMS FOR EVERY DOWNSTREAM WITH BURST CREATE A NEW UPSTREAM PROFILE TAILORED TO DOCSIS 1.1 FOR EACH AND 1.0 MODULATION PROFILE AND **OVERPERFORMING** MOVE DOCSIS 1.1 CMs TO 1.1 GROUP WITH HIGHER **UPSTREAM AND 1.0 CMsTO 1.0** THROUGHPUT AND/OR LESS UPSTREAM. ALL 2.0 CMs ARE LEFT AGGRESSIVE FORWARD AS ONE GROUP OPERATING IN SCDMA ERROR CORRECTION, AND OR ATDMA MODE ON THE MOVE OVER PERFORMING APPROPRIATE 2.0 UPSTREAM CMs TO IT 150 OPTIONAL: CREATE A SECOND **DOCSIS 2.0 BURST PROFILE OPTIONAL: CONTINUE TO** MONITOR AND CREATE **UPSTREAM AND MOVE SOME** OR ALL OF DOCSIS 2.0 FURTHER SUBGROUPS AND CREATE NEW UPSTREAMS IF CMs TO IT **APPROPRIATE** - 142 -152 MONITOR EACH CM's DATA TRANSMISSIONS FOR QUALITY

FIG. 4

AFTER REGISTRATION AND DETERMINE IF ANY CM IS OVERPERFORMING OR UNDERPERFORMING ITS UPSTREAM

DONE

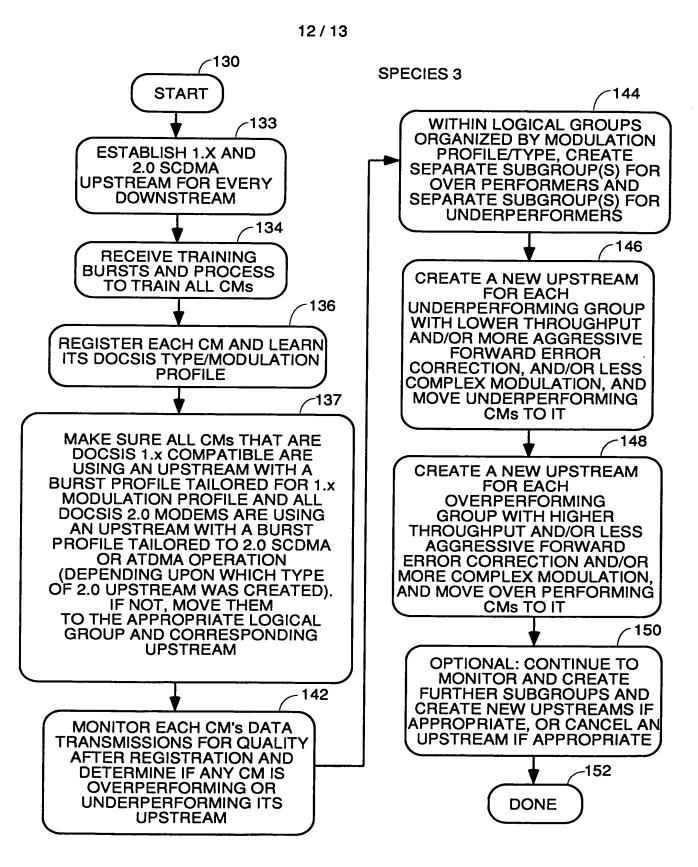


FIG. 5

